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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/137,842 08/21/98 BAEK

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WM02/1010

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EXAMINER

DINH, D

FLESHNER & KIM
P O BOX 221200
CHANTILLY VA 20153-1200

ART UNIT	PAPER NUMBER
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2674

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DATE MAILED: 10/10/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/137,842

Applicant(s)

BAEK ET AL.

Examiner

DUC Q DINH

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 August 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 7-9 and 11-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 7-9 and 11-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 7.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 7-9 and 11-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admitted Prior Art, hereinafter AAPA (page Fig. 1-6, page 1-7), in view of Moriconi (5,546,098) and further in view of Godfrey et al (5,736,973).

In reference to claim 7 and 11-13, the AAPA discloses a notebook computer with a panel module 10 comprising a display module 10 and the with all the limitations in claim 7 with the exception of the timing control circuit being on the panel module rather than module control board as recited in claim 7 (comparing Fig. 4 and Fig. 7).

However, Moriconi discloses that the display circuitry corresponding to the claimed timing control circuit may be located in one module, and the scanning drivers and data drivers are located on another module.

It would have been obvious to utilize the teaching of Moriconi, i.e., providing AAPA's timing control board in another module, in the system of AAPA because this would allow the a variety of different types of display module to be used (col. 2, lines 58-63).

The AAPA in view of Moriconi fail to disclose that the backlight driver is integrated in a printed circuit board Godfrey disclose and integrated display system in which a backlight driver is integrated in a printed circuit board in Fig. 3.

It would have been obvious for one of ordinary skill in the art at the time of the invention was made to provide the printed circuit board of Godfrey in the device of the AAPA and Moriconi because it would provide a compact and space efficient backlight driver control circuit for the driver control system of the display device.

In reference to claim 8, refer to the previous rejection. In addition, the AAPA disclose that the FPC 21 is a flexible printed film.

In reference to claim 9, the AAPA discloses a FPC 21 in Fig. 5.

In reference to claim 14, Moricono disclose the display control board 41 in Fig. 4.

In reference to claims 15-17, the AAPA discloses the display 10 in Fig. 3 and 5 having driving circuit inherently mounted in a circuit board.

In reference to claim 18-19, Moriconi disclose in Fig. 1 a laptop computer having a keyboard with a matrix display module that can be rotated between an open and closed position.

Response to Arguments

Applicant's arguments filed on August 8, 2001 have been fully considered but they are not persuasive. Applicant argues that "the AAPA and Moriconi, even if combined, do not teach or suggest at least the feature of a timing control unit located on a module control board that also has a back light unit driver for driving a backlight unit of the panel module and combinations thereof as recited in claim 7. further, the asserted combination fails to teach or suggest a notebook computer having a body module with a main printed circuit board and a driving circuit

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mounted on the main printed circuit board that drives the drivers in a display module and connected to a backlight unit and combination thereof as recited in claim 12. However, the AAPA discloses the display system having a panel module, Moriconi discloses a device in which the timing control circuit may be located in one module, and the scanning drivers and data drivers are located on another module, Godfrey discloses display system in which a backlight driver is integrated in a printed circuit board. It would have been obvious to provide the PCB of Godfrey in the AAPA and Moriconi system for a compact control circuit for the driver control system of the display device.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **DUC Q DINH** whose telephone number is **(703) 306-5412**. The examiner can normally be reached on Mon-Fri from 8:00.AM-4:00.PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **RICHARD A HJERPE** can be reached on **(703) 305-4709**.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

Or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

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Hand-delivery response should be brought to: Crystal Park II, 2121 Crystal Drive,
Arlington, Va Sixth Floor (Receptionist)

Any inquiry of a general nature or relating to the status of this application or proceeding
should be directed to the Technology Center 2600 Customer Service Office whose telephone
number is (703) 306-0377.

DUC Q DINH
Examiner
Art Unit 2674

DQD
October 8, 2001



RICHARD HJERPE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600